Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled)

2. (Previously Presented) A substantially pure nucleic acid comprising a nucleotide sequence encodes the amino acid sequence of SEQ ID NO:6.

3-4. (Canceled)

5. (Previously Presented) A substantially pure nucleic acid that encodes a fragment of the polypeptide of SEQ ID NO: 6 of at least 60 amino acids in length.

6-9. (Canceled)

10. (Previously Presented) A vector comprising the nucleic acid of any of claims 2 or 5.

11. (Previously Presented) A cell comprising a recombinant nucleic acid that includes the nucleic acid of any of claims 2 or 5.

12. (Canceled)

13. (Previously Presented) A method of manufacturing a polypeptide comprising culturing the cell of claim 11 in a medium to express the polypeptide encoded by the recombinant nucleic acid.

14-20. (Canceled)

21. (Previously Presented) A substantially pure nucleic acid consisting of a nucleotide sequence encoding SEQ ID NO: 6.

22-24. (Canceled)

25. (Previously Presented) A substantially pure nucleic acid comprising the coding sequence of SEQ ID NO:5.

26. (Currently Amended) An oligonucleotide comprising between 30 and 150 contiguous nucleotides of a nucleotide sequence encoding SEQ ID NO: 6, or a complement thereof.

27. (Previously Presented) The oligonucleotide of claim 26, further comprising a label group.

28. (Previously Presented) The oligonucleotide of claim 29, wherein the label group is selected from the group consisting of: a radioisotope, a fluorescent compound, an enzyme, and an enzyme co-factor.

29. (Previously Presented) A substantially pure nucleic acid comprising a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 2 or SEQ ID NO: 4.

30. (Previously Presented) The nucleic acid of claim 29, wherein the nucleotide sequence encodes the amino acid sequence of SEQ ID NO: 2.

31. (Previously Presented) The nucleic acid of claim 29, wherein the nucleotide sequence encodes the amino acid sequence of SEQ ID NO: 4.

32. (Previously Presented) The nucleic acid of claim 30, wherein the nucleotide sequence comprises the coding sequence of SEQ ID NO: 1.

33. (Previously Presented) The nucleic acid of claim 31, wherein the nucleotide sequence comprises the coding sequence of SEQ ID NO: 3.

34. (Previously Presented) A vector comprising the nucleic acid of claim 30.

35. (Previously Presented) A vector comprising the nucleic acid of claim 31.

36. (Previously Presented) A cell comprising a recombinant nucleic acid that includes the nucleic acid of claim 30.

37. (Previously Presented) A cell comprising a recombinant nucleic acid that includes the nucleic acid of claim 31.

38. (Previously Presented) A method of manufacturing a polypeptide comprising culturing the cell of claim 36 or 37 in a medium to express the polypeptide encoded by the recombinant nucleic acid.

39. (Currently Amended) A method of manufacturing a polypeptide comprising culturing a cell comprising a recombinant nucleic acid vector that includes a polypeptide coding

sequence that hybridizes to the nucleotide sequence of SEQ ID NO:5 under high stringency conditions (i) or (ii):

(i) hybridization in 480 ml formamide, 240 ml 20x SSC, 10 ml 2 M Tris.Cl, pH 7.6, 10 ml 100x Denhardts solution, 50 ml deionized water, 200 ml 50% dextran sulfate, and 10 ml 10% SDS; and wash in 0.2x SSC and 1% sodium dodecyl sulfate (SDS); or

(ii) hybridization in 1% crystalline bovine serum albumin (BSA), 1 mM EDTA, 0.5 M NaHP04, pH 7.2, and 7% SDS; and wash in 1 mM Na2EDTA, 40 mM NaHPO4, pH 7.2, and 1% SDS at 65°C , under conditions whereby the polypeptide encoded by the polypeptide coding sequence is expressed.

40. (Previously Presented) A substantially pure nucleic acid that hybridizes to the nucleotide sequence of SEQ ID NO:5 under high stringency conditions (i) or (ii):

(i) hybridization in 480 ml formamide, 240 ml 20x SSC, 10 ml 2 M Tris.Cl, pH 7.6, 10 ml 100x Denhardts solution, 50 ml deionized water, 200 ml 50% dextran sulfate, and 10 ml 10% SDS; and wash in 0.2x SSC and 1% sodium dodecyl sulfate (SDS); or

(ii) hybridization in 1% crystalline bovine serum albumin (BSA), 1 mM EDTA, 0.5 M NaHP04, pH 7.2, and 7% SDS; and wash in 1 mM Na_2EDTA, 40 mM $NaHPO_4$, pH 7.2, and 1% SDS at 65°C.

41. (Currently Amended) The nucleic acid of claim ~~39 or~~ 40 that hybridizes to the nucleotide sequence of SEQ ID NO:5 under high stringency conditions that include 80 ml formamide, 240 ml 20x SSC, 10 ml 2 M Tris.Cl, pH 7.6, 10 ml 100x Denhardts solution, 50 ml deionized water, 200 ml 50% dextran sulfate, and 10 ml 10% SDS; and wash in 0.2x SSC and 1% sodium dodecyl sulfate (SDS) at 65°C.

42. (Currently Amended) The nucleic acid of claim ~~41 or~~ 40 that hybridizes to the nucleotide sequence of SEQ ID NO:5 under high stringency conditions that include 1%

crystalline bovine serum albumin (BSA), 1 mM EDTA, 0.5 M $NaHP0_4$, pH 7.2, and 7% SDS; and wash in 1 mM Na_2EDTA, 40 mM $NaHPO_4$, pH 7.2, and 1% SDS at 65°C.

43. (New) The nucleic acid of claim 40 wherein the nucleic acid encodes a polypeptide that comprises the amino acid sequence of SEQ ID NO:6.

44. (New) The nucleic acid of claim 40 that is at least 500 nucleotides in length.

45. (New) The nucleic acid of claim 45 that is at least 1000 nucleotides in length.